PEACE/WILLISTON
FISH & WILDLIFE
COMPENSATION
PROGRAM

BC hydro

BRITISH
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Wildlife Program
Annual Report 1993/94

F. B. Corbould and M. D. Wood
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The Peace/Williston Fish & Wildlife Compensation Program is a cooperative venture of BC Hydro and the provincial fish and wildlife management agencies, supported by funding from BC Hydro. The Program was established to enhance and protect fish and wildlife resources affected by the construction of the W.A.C. Bennett and Peace Canyon dams on the Peace River, and the subsequent creation of the Williston and Dinosaur Reservoirs.

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Website: *www.bchydro.bc.ca/environment/initiatives/pwcp/*

This report has been approved by the Peace/Williston Fish and Wildlife Compensation Program Fish Technical Committee.

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PROGRAM ADMINISTRATION

During fiscal 1993/94, Mari Wood and Fraser Corbould continued on as wildlife biologists (full-time temporary) with the Compensation Program in Prince George. Tracey Martin was hired from Dec/93 to Mar/94 as Environmental Assistant to assist with various projects. In addition, contractors and individuals were hired to work on specific projects.

Administration activities included organization and distribution of technical and administrative reports to B.C. Environment and B.C. Hydro libraries; participation in Five Year Review of Compensation Program; discussions with B.C. Environment auditors regarding Program's accounting structure and procedures; personnel issues and development; and office responsibilities.

PROGRAM PLANNING

Late approval of the annual budget resulted in some scheduled summer projects being cancelled. Once full budget approval was received in late September, and adjustments were made for the Pelly Lake burn cost overrun and savings from other projects, supplemental items were added and some existing projects were expanded.

Technical Committee meetings were held quarterly to update Committee members on program progress and discuss current issues. A joint Fish and Wildlife Technical Committee meeting was held to discuss the Public Consultation Program, and the overall presentation and delivery structure of the Compensation Program. Updates were made to the Five-Year-Plan (1994/95 to 98/99) and Progress-To-Date (1988/89 to 1993/94) spreadsheets.

PUBLIC CONSULTATION

A. PRESENTATIONS/MEETINGS

A slide show presentation on the Wildlife Program was given to tour guides at Peace Canyon/G.M. Shrum. Six face-to-face consultations, supported by display boards (photographs and explanatory texts), were used to present individual projects and Program overviews at a number of venues. Also, over 15 meetings were held in the field and office with various agencies (BCE/BCFS), groups (Ducks Unlimited/Fletcher Challenge), native bands (Tsay Keh Dene), consultants and individuals. A report detailing the 1992/93 public consultation activities was also prepared. Workshops were postponed and rescheduled for the 1995/96 fiscal year.

B. NATURELINE/PRESS RELEASES

The fifth issue of *NatureLine* was released in December 1993. Press releases on

prescribed burning and the 1993 Mt. Frank Roy Stone's sheep transplant were prepared and distributed to newspapers and magazines. An information bulletin detailing the Pelly Lake burn was prepared for the B.C. Forest Service, stakeholders and general public.

PROJECTS SUMMARY

1. FORAGE ENHANCEMENT - PEACE, FINLAY AND PARSNIP

Forage enhancement projects in the Williston watershed consisted of prescribed burning, girdling and vegetation monitoring. In the Peace, 272 hectares were burned at Branham Slide. Prescribed burns in the Finlay drainage included 180 hectares at Pesika Creek and 1340 hectares at Pelly Lake; the Pelly Lake burn escaped and required the assistance of Unit Crews from the Forest Service to control the fire. Post-burn vegetation monitoring was conducted in the summer at Branham Slide and Pelly Lake burn sites; new growth on some willows was over two metres in height. A burn proposal for Butler Ridge (spring 1994) was sent to the Forest District for approval. The Omineca manual slashing contract was postponed due to late budget approval. In the Parsnip drainage, the aspen girdling/willow slashing project was initiated; assistance was provided by the Mackenzie Fish and Game Assn. and Hydro's Native Environmental Youth Crew. In addition, the Anzac and Table Rivers were assessed for potential enhancement opportunities.

2. ELK TRANSPLANT PROJECT

A transplant proposal was sent to stakeholders and ministries for referral and comments. The proposal was approved by the Wildlife Branch once the concerns of respondents were addressed. Logistics for the transplant of elk to the Ingenika River area was arranged; the transplant was postponed due to abnormally high snow depths at the release site.

3. DONNA CREEK CAVITY NESTER PROJECT

Transects were checked and re-flagged in preparation for the bird and furbearer surveys. The first year of breeding bird surveys (May-July) was conducted by contractor, and a report was drafted. Also, the first year of winter track surveys for furbearers was conducted in January and March. A project poster board was displayed at the Watchable Wildlife and Non-Game Symposium in Victoria, and a slide show presentation was given on the project study design at an Ecosystem Management Seminar in Prince George.

4. WETLANDS ENHANCEMENT PROJECT

Waterfowl inventories and wetland habitat assessments were conducted in the Parsnip drainage. Enhancements at Dina Lake included establishment of two floating islands and six nest boxes. Previous enhancements were monitored for use by waterfowl. A report

detailing the 93/94 enhancement and monitoring activities was prepared. Prescribed burning of the Mischinsinlika foreshore for waterfowl enhancement was approved and the site was surveyed with the Protection Officer, Mackenzie Forest District. The burn was cancelled following the Pelly Lake fire because of an unclear burning protocol agreement with the Forest Service and monetary concerns. A 1994 spring burning proposal for the Mischinsinlika foreshore was sent to the Mackenzie Forest District for approval.

5. WILDLIFE VIEWING - MUGAHA AND DUNLEVY

A wildlife viewing sign was installed at Mugaha marsh (north of Mackenzie), and a sign and shelter was developed for the Dunlevy viewing site (Peace Arm); the Dunlevy sign and shelter will be installed in June 1994. The signs describe the viewing opportunities available in the area and enhancements conducted/ongoing by the wildlife program. A status report on the Mugaha project was prepared.

6. PEACE UNGULATE HABITAT USE - STONE'S SHEEP, ELK AND CARIBOU

Monitoring of radio-collared ungulates on the Peace Arm was continued by contractor on a monthly basis. A summary report on the animals' annual movements was produced by the contractor.

7. MT. FRANK ROY STONE'S SHEEP TRANSPLANT

Monitoring of radio-collared transplanted sheep was continued monthly by contractor, and a summary report of the animals' annual movements was prepared. A winter survey was also conducted. A status report on the 1993 Stone's sheep transplant was drafted.

8. OMINECA MOUNTAINS CARIBOU

Monitoring of radio-collared woodland caribou was continued by Program staff (third year), and an additional six bull caribou were captured and collared in the southern portion of study area. A Phase 1 working plan was drafted. Meetings were held to address caribou management in the Mackenzie Timber Supply Area; identify important habitats, migration corridors, and wintering and calving ranges for use in the development of management plans; and discuss caribou and Protected Area Strategies. A project poster board was displayed at the 6th North American Caribou Workshop in Prince George, and a paper was initiated for inclusion in the published Workshop proceedings.

9. HABITAT MAPPING - PEACE AND OMINECA

Habitat mapping projects from previous years were continued. The Peace Arm mapping project was completed and is awaiting computer digitization (1994/95 project). The final stages (FCCL contract) of the Omineca mapping project is coming to a close; final maps to be plotted by FCCL is scheduled for the 1994/95 fiscal.

10. UNGULATE INVENTORY

An inventory of the Muskwa Ranges for caribou, sheep and goat was conducted. A report on the 1993 Russel Range Stone's sheep and mountain goat inventory was drafted.

11. SNOW DEPTH SURVEY

Snow depth survey of the lower elevation winter ungulate habitat in Parsnip and Finlay drainages was conducted. A status report on the 1990 snow survey was drafted.

FINANCIAL SUMMARY

A total of $368,097 was expended during the 1993/94 fiscal, essentially meeting the $370,000 budgeted. Three-quarters (74%; $270,699) of program monies were directed to projects, with one-third (34%; $125,761) devoted to enhancement and protection (Figure 1).

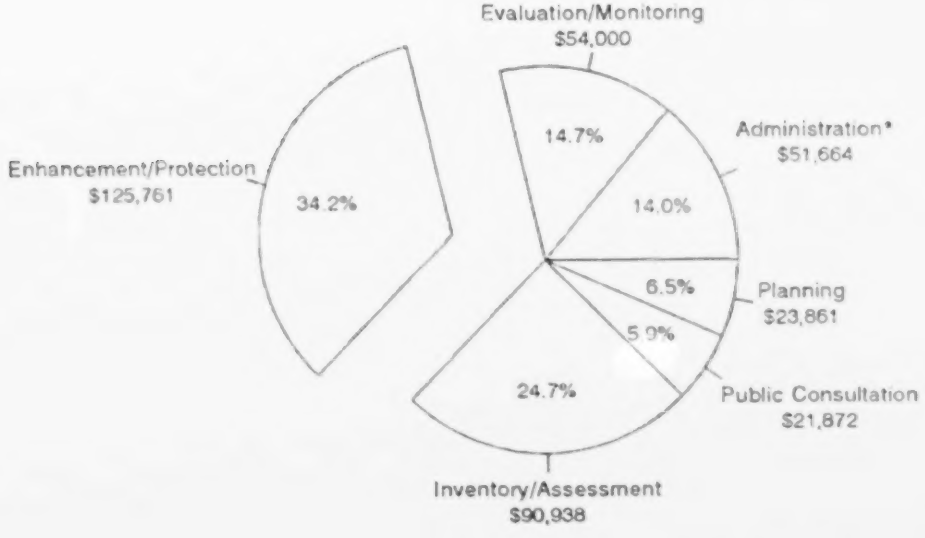

Figure 1. 1993/94 program expenditures by the six basic cost categories. (*Administration includes $10,500 [3%] of extraordinary items).

Of the 11 projects undertaken by the Wildlife Program in 1993/94, only three projects consumed more than $20,000: Forage Enhancement $100,588 (Peace, Finlay & Parsnip), Omineca Mountains Caribou $51,802, and Donna Creek Cavity Nester $40,369 (Table 1). Discrepancies between budgeted and expended project monies (Inventory, Enhancement and

Evaluation) were primarily due to late budget approval, and subsequent expansion of budgeted projects and inclusion of supplemental items. A slight increase in Administration costs was attributable to extraordinary items not originally budgeted, but identified as being necessary to the program: copying and distribution of back-logged wildlife reports ($6,100) and purchase of computer equipment ($4,400).

Table 1. Fiscal 1993/94 budget and expenditures summarized by the six basic cost categories.

Cost Category	Description	Project Costs	Total Expended	Total Budgeted
ADMINISTRATION	General Administration[1]	$41,164		
	Extraordinary Costs[2]	$10,500	$51,664	$46,475
PLANNING[3]			$23,861	$20,325
PUBLIC CONSULTATION[4]			$21,872	$29,300
INVENTORY/ ASSESSMENT	Wetlands Enhancement	$1,707		
	Peace Ungulate Habitat Use	$5,775		
	Omineca Mtns. Caribou	$50,466		
	Habitat Mapping	$4,276		
	Ungulate Inventory	$10,608		
	Snow Depth Survey	$17,173		
	Other	$933	$90,938	$68,250
ENHANCEMENT/PROTECTION	Forage Enhancement - Peace	$12,813		
	Forage Enhancement - Finlay	$76,409		
	Forage Enhancement - Parsnip	$5,535		
	Elk Transplant	$16,136		
	Wetlands Enhancement	$4,209		
	Wildlife Viewing	$7,067		
	Mt. Frank Roy Transplant	$1,976		
	Omineca Mtns. Caribou	$1,336		
	Other	$279	$125,761	$161,825
EVALUATION/MONITORING	Forage Enhancement - Finlay	$5,831		
	Donna Creek Cavity Nester	$40,369		
	Wetlands Enhancement	$1,700		
	Mt. Frank Roy Transplant	$5,702		
	Other	$397	$54,000	$43,825
TOTAL			$368,096	$370,000

[1] General administration includes staff wages, office rent, furniture, office supplies, supplies and associated vehicle costs.

[2] Extraordinary items were unbudgeted activities/expenses: copying and distribution of back-logged wildlife reports ($6,100) and purchasing of computer equipment ($4,400).

[3] Planning includes staff wages and travel, Technical Committee travel and associated vehicle costs.

[4] Public Consultation includes staff wages and travel, production of *Natureline*, supplies, services and associated vehicle costs.

Outside organizations also provided important financial and/or personnel support on a number of projects: B.C. Forest Service (~$250,000; Finlay Forage Enhancement), B.C. Environment (> 25 man-days; various projects), Habitat Conservation Fund ($13,400; Donna Creek Cavity Nester), Fletcher Challenge Canada Ltd. (~ 20 man-days & >90 camp-days; Habitat Mapping & Donna Creek Cavity Nester), B.C. Hydro Environmental Youth Crew (20 man-days; Wetlands Enhancement & Parsnip Forage Enhancement), Mackenzie High School ($700; Wetlands Enhancement) and Mackenzie Fish and Game Assn. (4 man-days; Parsnip Forage Enhancement).

Appendix A. Peace/Williston Compensation Program: wildlife reports.

The following reports are final, unpublished Wildlife reports. Reports are listed in reverse chronological order, and papers produced in the 1993/94 fiscal are highlighted in bold print.

The Compensation Program is named the *Peace/Williston Compensation Program,* however, prior to 1993, reports prepared for the Wildlife section referred to the Compensation Program as the *Williston Wildlife Compensation Program.*

Backmeyer, R.J.. 1994. Williston Lake Peace Arm radio-collared ungulate studies: progress report April 1993 to March 1994. Peace/Williston Compensation Program, Prince George, B.C. Interim Technical Report. 9pp plus appendices.

_____. 1994. Peace Arm Williston Lake wildlife capability ratings. Peace/ Williston Compensation Program, Prince George, B.C. Working Report. 54pp.

_____. 1993. Peace Arm radio-collared ungulate studies, April 1992 - March 1993. Williston Wildlife Compensation Program, Prince George, B.C. Interim Technical Report. 12pp plus appendices.

_____. 1992. Peace Arm radio-collared ungulate studies, May 1991 - March 1992. Williston Wildlife Compensation Program, Prince George, B.C. Interim Technical Report. 15pp plus appendices.

_____. 1991. Wildlife distribution and habitat use south of the Peace Reach of Williston Reservoir. Williston Wildlife Compensation Program, Prince George, B.C. Working Report. 19pp.

_____. 1991. Peace Arm Lake radio-collared ungulate studies, February and March, 1991. Williston Wildlife Compensation Program, Prince George, B.C. Interim Technical Report. 5pp.

_____. 1991. Williston Lake elk collaring (Peace Arm), March, 1991. Williston Wildlife Compensation Program, Prince George, B.C. Status Report. 5pp.

_____. 1991. Williston Lake Stone's sheep transplant, March, 1991. Williston Wildlife Compensation Program, Prince George, B.C. Status Report. 8pp.

Becker, Dana Q. 1992. Upland furbearer problem analysis. Williston Wildlife Compensation Program, Prince George, B.C. Working Report. 125pp.

Becker, G.K. 1992. 1991-92 Public Consultation Report. Peace/Williston Compensation Program, Prince George, B.C. 69pp.

Bemister, Charlotte. 1993. 1992-1993 Public consultation report. Peace/Williston Compensation Program, B.C. Hydro, Burnaby, B.C. 23pp plus appendices.

Corbould, Fraser B. 1993. Annual Report 1992/93. Peace/Williston Compensation Program, Prince George, B.C. 21pp.

_____. 1993. Mugaha marsh and pond wildlife viewing sign. Peace/Williston Compensation Program, Prince George, B.C. Status Report. 5pp.

_____. 1993. Dina Lakes wetlands enhancement and Parsnip nestbox monitoring. Peace/Williston Compensation Program, Prince George, B.C. Status Report. 5pp.

_____. 1993. Chase Mtn/Butler Range caribou inventory, March 1993. Peace/ Williston Compensation Program, Prince George, B.C. Status Report. 5pp.

_____. 1992. Wetlands enhancement 1992. Williston Wildlife Compensation Program, Prince George, B.C. Status Report. 4pp.

_____. 1991. Waterfowl and aquatic furbearer inventory and assessment of Tutu and Mugaha Bay wetlands, Mackenzie, B.C. Williston Wildlife Compensation Program, Prince George, B.C. Working Report. 30pp plus appendices.

_____. 1991. Wetlands enhancement, Tutu/Mugaha nesting islands, 1991. Williston Wildlife Compensation Program, Prince George, B.C. Status report. 2pp.

Davidson, Peter W. 1991. Ungulate census of drainages adjacent to the north shore of the Peace Arm, Williston Reservoir, March 11-13, 1990. Williston Wildlife Compensation Program. Working Report. 13pp.

_____. 1990. Mt. Frank Roy Stone's sheep transplant, March 1990. Williston Wildlife Compensation Program, Prince George, B.C. Status Report. 10pp.

_____. 1989. Mt. Frank Roy Stone's sheep transplant. Williston Wildlife Compensation Program, Prince George, B.C. Working Plan. 6pp.

Davidson, Peter W., and Rick Dawson 1990. Williston Wildlife Compensation Program Management Plan, 1990. Williston Wildlife Compensation Program, Prince George, B.C. 44pp.

Dawson, Rick. 1991. Wildlife Burn Plan - 1991: Mackenzie Forest District, west Finlay/Ingenika area. Williston Wildlife Compensation Program. 13pp.

_____. 1990. Wetland enhancement trial. Williston Wildlife Compensation Program, Prince George, B.C. Status Report. 6pp.

Dawson, Rick, Linda J. Murray, and Mari D. Wood. 1992. Wildlife tree maintenance and creation in managed ESSF forests in the Mackenzie District. Working Plan. Williston Wildlife Compensation Program, Prince George, B.C. 24pp.

Dawson, Rick, and Mari D. Wood. 1991. Annual report, 1990-91. Williston Wildlife Compensation Program, Prince George, B.C. 5pp.

Hatler, David F. 1990. Wildlife distribution and habitat use in the northern Williston Reservoir area, British Columbia, winter 1990. Williston Wildlife Compensation Program, Prince George, B.C. Working Report. 17pp plus appendices.

_____. 1989. Moose winter distribution and habitat use in the southern Williston Reservoir area, British Columbia, 1989. Williston Wildlife Compensation Program, Prince George, B.C. Working Report. 25pp plus appendices.

Hirst, S.M. 1990. Ungulate census of north shore and adjacent areas, Peace Arm, Williston Reservoir, March 1989. Williston Wildlife Compensation Program, Prince George, B.C. Working Report. 10 pp plus appendices.

Ketcheson, Maureen V., and Evan McKenzie. 1991. Report, vegetation map, ungulate capability map and habitat enhancement plan for Dunlevy Inlet (Block A, D.L. 754 Williston Lake, B.C.). Williston Wildlife Compensation Program, Prince George, B.C. Working Report. 12pp plus appendices.

Martin, Tracey L. 1992. Waterfowl inventory and wetlands enhancement summary. Williston Wildlife Compensation Program, Prince George, B.C. Working Report. 22pp plus appendices.

McKenzie, Evan. 1993. Omineca biophysical mapping project: maps and legend. Peace/Williston Compensation Program, Prince George, B.C. Working Report. 125pp.

Murray, Linda J. 1992. Cavity Nester Habitat Selection Project, phase 1 report: snag deterioration. Williston Wildlife Compensation Program, Prince George, B.C. Status Report. 11pp.

_____. 1992. Cavity Nester Habitat Selection Project, phase 3 report: map preparation and transect layout. Williston Wildlife Compensation Program, Prince George, B.C. Status Report. 9pp plus appendices.

Pomeroy, Patrick M. 1989. Appraisal Report re: Block A, D.L. 754, except plans 30912 and 30913 Williston Lake. Nature Trust of B.C., West Vancouver. 19pp.

_____. 1989. Appraisal Report re: D.L. 2042, excluding plan 17557, Williston Lake. Nature Trust of B.C., West Vancouver. 21pp plus appendices.

_____. 1989. Appraisal Report re: D.L. 3181, Williston Lake. Nature Trust of B.C., West Vancouver. 21pp plus appendices.

_____. 1989. Appraisal Report re: Lot 1, Plan 16495, D.L. 329, and Lot 3, Plan 16495, D.L. 330, Williston Lake. Nature Trust of B.C., West Vancouver. 22pp plus appendices.

Read, D.J. 1991. Public Consultation Report 1990/91. Peace/Williston Compensation Program, Prince George, B.C. 16pp plus appendices.

Summers, Ken. 1993. Donna Creek breeding bird report. Peace/Williston Compensation Program, Prince George, B.C. Working Report. 18pp plus appendices.

Thompson, C.E., and L.E.H. Lacelle. 1992. Biophysical habitat classes for the Peace Arm of the Williston Reservoir study area. Williston Wildlife Compensation Program, Prince George, B.C. Working Report. 81pp.

Wood, Mari D. 1993. Pelly Lake prescribed burn, May 1993 (bulletin). Peace/ Williston Compensation Program. Status Report. 3pp.

_____. 1993. Wolverine Range woodland caribou inventory, February 1993. Peace/ Williston Compensation Program. Status Report. 4pp.

_____. 1993. 1993 caribou capture summary. Peace/Williston Compensation Program. Status Report. 4pp.

_____. 1992. Annual Report 91/92. Peace/Williston Compensation Program, Prince George, B.C. 9pp.

_____. 1992. Donna Creek Biodiversity Project (Cavity Nester Habitat Selection), progress report 1992/93. Peace/Williston Compensation Program, Prince George, B.C. Working Report. 9pp plus appendices.

_____. 1992. South Peace Arm Stone's sheep inventory, June 1992. Peace/ Williston Compensation Program, Prince George, B.C. Status Report. 5pp.

_____. 1992. South Peace Arm Stone's sheep inventory, December 1992. Peace/ Williston Compensation Program, Prince George, B.C. Status Report. 5pp.

_____. 1992. Project Highlights: 1992. Williston Wildlife Compensation Program, Prince George, B.C. 15pp.

Wood, Mari D., and Fraser B. Corbould. 1993. Project Highlights: 1993. Peace/Williston Compensation Program, Prince George, B.C. 9pp.

The following wildlife reports were in prep or in draft form at the end of the 1993/94 fiscal.

Corbould, Fraser B. draft. Russel Range Stone's sheep and mountain goat survey, March 1993. Working Report. 20pp.

_____. in prep. Ungulate food habits: Peace Arm and Ospika drainage. Working Report.

Dawson, Rick, and Mari D. Wood, draft. Omineca Mountains woodland caribou study. Peace/Williston Compensation Program, Prince George, B.C. Working Plan. 7pp.

Martin, Tracey L. draft. Mt. Frank Roy Stone's sheep transplant, March 1993. Peace/ Williston Compensation Program, Prince George, B.C. Status Report. 5pp.

_____. draft. Snow depth survey, winter 1990. Peace/Williston Compensation Program, Prince George, B.C. Status Report. 9pp.

_____. draft. Pelly Lake prescribed burn. Peace/Williston Compensation Program, Prince George. Status Report. 5pp.

_____. draft. Pesika Creek prescribed burn. Peace/Williston Compensation Program, Prince George. Status Report. 5pp.

_____. in prep. Snow depth survey, winter 1994. Status Report.

_____. in prep. Branham Slide prescribed burn. Status Report.

_____. in prep. Tutu/Mugaha aspen girdling project. Status Report.

Wood, Mari D. in prep. Seasonal habitat use, movements and population status of woodland caribou in the Omineca Mountains, north central British Columbia. Proceedings of 6th North American Caribou Workshop. Rangifer.

_____. in prep. Omineca Mountains woodland caribou study: progress report. Interim Technical Report.